

# Rule-Based Analytic Asset Management for Space Exploration Systems (RAMSES), Phase I

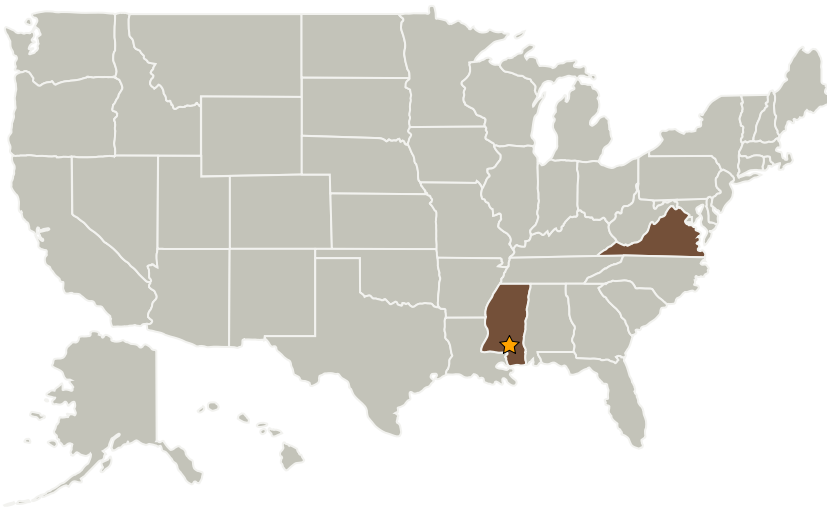
Completed Technology Project (2006 - 2007)



## Project Introduction

Currently, the state-of-the-art in space asset tracking and information management is bar-coding with relational database support. To support NASA's need for reliable and low-cost asset management, Payload Systems Inc. and MIT propose to develop Rule-based Analytic Asset Management for Space Exploration Systems (RAMSES) ? an intelligent space exploration environment in which information is shared and automatically harmonized among disparate data sources. This information is then combined with mathematical models and rule-based analysis to produce meaningful data for asset tracking and intelligent decisions. The combined data will communicate with analytic models that provide analyses, estimates, predictions and plans. This intelligent space exploration environment will be equipped with sensors, radio frequency identification (RFID) equipment and sophisticated information infrastructures to make full use of multiple data streams.

## Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★ Stennis Space Center(SSC)	Lead Organization	NASA Center	Stennis Space Center, Mississippi
Aurora Flight Sciences Corporation	Supporting Organization	Industry	Cambridge, Massachusetts



Rule-Based Analytic Asset Management for Space Exploration Systems (RAMSES), Phase I

## Table of Contents

Project Introduction	1
Primary U.S. Work Locations and Key Partners	1
Organizational Responsibility	1
Project Management	2
Technology Areas	2

## Organizational Responsibility

### Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

### Lead Center / Facility:

Stennis Space Center (SSC)

### Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

# Rule-Based Analytic Asset Management for Space Exploration Systems (RAMSES), Phase I

Completed Technology Project (2006 - 2007)



## Primary U.S. Work Locations

Mississippi

Virginia

## Project Management

### Program Director:

Jason L Kessler

### Program Manager:

Carlos Torrez

## Technology Areas

### Primary:

- TX11 Software, Modeling, Simulation, and Information Processing
  - └ TX11.5 Mission Architecture, Systems Analysis and Concept Development
    - └ TX11.5.2 Tools and Methodologies for Performing Systems Analysis